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2013 Minerals Yearbook

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The Mineral Industry of Zimbabwe

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Zimbabwe's real gross domestic product (GDP) increased by an estimated 4.5% in 2013 compared with that of 2012. The provisional nominal GDP was about $13.5 billion in 2013, of which mining and quarrying accounted for 8.8%. Zimbabwe's diverse mineral output included about 9% of the world's diamond production (by volume), an estimated 7% of the world's platinum production, and about 5% of the world's palladium output (International Monetary Fund, 2014, p. 21; Kimberley Process Certification Scheme, 2014; Zimbabwe National Statistics Agency, 2014; Loferski, 2015).

The Ministry of Mines and Mining Development manages the mineral sector in accordance with the Mines and Minerals Act (chapter 21:05); the Mining (General) Regulations, 1977; and their amendments. Mining operations also are regulated by numerous other acts, amendments, regulations, statutory instruments, and general notices.

Minerals in the National Economy

Of the approximately 30 minerals and mineral-based commodities produced in Zimbabwe, diamond, gold, and platinum-group metals (PGMs) were the most economically significant. In accordance with the Minerals Marketing Corp. of Zimbabwe Act [as modified by the Minerals Marketing Corp. (Exemption) Regulations, 1983, and the Precious Stones Trade Act, 1978], state-owned Minerals Marketing Corp. of Zimbabwe (MMCZ) officially marketed much of the mineral production of Zimbabwe, excluding PGMs. Mining companies that produced PGMs shipped their concentrates and smelter matte directly to processing facilities in South Africa. Mining royalties, which were based on the value of minerals or mineral-bearing products that are shipped from the mine site, were payable to the Zimbabwe Revenue Authority.

In 2013, Fidelity Printers & Refiners (Private) Ltd., which was a subsidiary of the Reserve Bank of Zimbabwe (RBZ), restarted gold refining operations that had been suspended in 2007 when domestic gold production had decreased significantly. The Government redesignated Fidelity as the country's sole gold buyer and vacated the RBZ's monetary policy statement of February 2, 2009, which had authorized organizations that held appropriate permits to export gold (Makichi, 2013; Ndlovu, 2014).

The United States had imposed economic sanctions on certain entities and individuals in Zimbabwe in 2003 (which were updated in 2005 and 2008) owing to human rights abuses, political violence, and the undermining of democratic institutions or processes in Zimbabwe. The provision of funds, goods, or services was prohibited to several State-owned entities, such as Industrial Development Corporation of Zimbabwe Ltd., MMCZ, Zimbabwe Iron and Steel Company (Private) Ltd., Zimbabwe Mining Development Corp. (ZMDC), and their subsidiaries, including Marange Resources (Private) Ltd., Mbada Diamonds (Private) Ltd., and Sino-Zim Development (Private) Ltd. (U.S. Department of the Treasury, 2015).

Production

In 2013, production of coal, cobalt, copper, graphite, nickel, and PGMs, and the estimated production of limestone and sulfuric acid increased notably compared with that of 2012. Production volumes of chromite, diamond, and phosphate rock and the estimated production volume of coke decreased significantly in 2013 compared with those of 2012 (table 1).

Structure of the Mineral Industry

Domestic and international investment companies, domestic and international mining companies, Government-owned companies, mining cooperatives, multinational cement companies, and small-scale miners managed mineral operations in Zimbabwe in 2013. With some negotiated exceptions, ownership of mineral operations in Zimbabwe by domestic or international nonindigenous corporations or people was limited by statute. State-owned companies involved in the mineral sector included MMCZ, ZMDC and its subsidiaries, and subsidiaries of state-owned Industrial Development Corporation of Zimbabwe Ltd., which produced industrial minerals and mineral-based commodities (table 2).

Commodity Review

Metals

Copper and Nickel.—In September 2012, Bindura Nickel Corporation Ltd., which was a subsidiary of Mwana Africa plc of the United Kingdom, restarted mining operations at the Trojan Mine. The mine's surface facilities (which included milling, flotation, concentrate handling, and tailings facilities) were recommissioned in early 2013, and underground mining operations were ramped up. In 2013, milling and processing of 436,186 metric tons (t) of copper-nickel ore recovered about 4,820 t of nickel in concentrate. The nickel concentrate production was sold to Glencore Xstrata plc of the United Kingdom, formerly Glencore International plc (Mwana Africa plc, 2014, p. 13).

In October, the ore reserves of Bindura's Trojan Mine were increased to 3.17 million metric tons (Mt) at an average grade of 1.04% nickel compared with the previous estimate of 2.41 Mt of ore at an average grade of 1.07% nickel. Bindura's nickel smelter and refinery remained on care-and-maintenance status in 2013 (Mwana Africa plc, 2013, p. 11; 2014, p. 13).

In addition to mined copper-nickel ore, copper and nickel also were produced as coproducts of PGMs mining by three

[1]Deceased.

companies. The Mimosa Mine, which was operated by Mimosa Holdings (Private) Ltd. of Mauritius, produced about 2.4 Mt of ore in 2013. Exported concentrated ore contained about 2,500 t of copper and 3,170 t of nickel. The Ngezi Mine, which was operated by Zimbabwe Platinum Mines (Private) Ltd. (a subsidiary of Zimplats Holdings Ltd. of Guernsey, United Kingdom), mined 5.1 Mt of ore and produced about 3,600 t of copper and 4,850 t of nickel, which was exported in smelter matte. In 2013, Unki Mines (Private) Ltd., which was a subsidiary of Anglo American Platinum Ltd. of South Africa, milled 1.57 Mt of ore from the Unki Mine compared with 1.54 Mt of ore in 2012. Exported concentrate was smelted in South Africa; and was estimated to contain about 1,600 t of copper and 1,300 t of nickel (Aquarius Platinum Ltd., 2013, p. 11; 2014, p. 12; Zimplats Holdings Ltd., 2013a, b; 2014; Anglo American Platinum Ltd., 2014, p. 154).

In 2013, RioZim Ltd. produced 3,360 t of refined copper and 2,845 t of refined nickel at the Empress Nickel Refinery from copper-nickel smelter matte imported from BCL Ltd. of Botswana, compared with 2,869 t of refined copper and 1,754 t of refined nickel in 2012. In November, RioZim commissioned a new 20-metric-ton-per-day (t/d)-capacity oxygen plant, which was expected to increase the facilities' matte throughput to 42 t/d from 34 t/d. RioZim planned to increase the plant's throughput to about 125 t/d. RioZim continued to restructure the company. The Empress Nickel Refinery and other base-metal assets were expected to be transferred to RioZim's proposed RioBaseMetals Ltd. operating subsidiary in 2014 (RioZim Ltd., 2014, p. 9, 17).

Platinum-Group Metals.—The Government announced that it expected that the three domestic PGMs mining companies would establish a refinery in Zimbabwe by the end of 2014, consistent with the Government's desire to produce value-added mineral commodities in Zimbabwe instead of exporting ores and smelter matte for beneficiation. To encourage the construction of processing plants for minerals in Zimbabwe, the Government proposed to tax exports of several unprocessed minerals (including PGMs) or to ban the export of unprocessed minerals. The Chamber of Mines of Zimbabwe estimated that domestic platinum production would have to exceed about 15.55 metric tons per year (t/yr) to justify the cost to build and operate a refinery. In 2013, platinum production reached 13 t, which was an increase from an estimated 10.5 t in 2012 (table 1; Chinamasa, 2013, p. 172; Makichi, 2013; Thomson Reuters, 2014).

In 2013, the Mimosa Mine exported concentrated ore that contained about 3.4 t of platinum, 2.6 t of palladium, 467 kilograms (kg) of gold, 280 kg of rhodium, and about 400 kg of other PGMs. Mimosa Holdings was negotiating the expansion of its ownership from a joint venture of Aquarius Platinum Ltd. of Bermuda, Impala Platinum Holdings Ltd. of South Africa, and the Zvishavane Community Share Ownership Trust to include the National Indigenisation and Economic Empowerment Fund and an employee share ownership trust that was to be established. Mimosa was also engaged in ongoing discussions with the Government concerning changes to its proposed indigenization plan (Aquarius Platinum Ltd., 2013, p. 11; 2014, p. 12; Impala Platinum Holdings Ltd., 2013, p. 81).

In 2013, production from Zimplats' Ngezi Mine included ore from the Bimha Mine (Portal 4), the Mupfuti Mine (Portal 3), the Ngwarati Mine (Portal 1), and the Rukodzi Mine (Portal 2). Mining operations at Mupfuti continued to ramp up and were at about 60% of capacity. A second concentrator at Ngezi was commissioned in April 2013. The two Ngezi concentrators processed about 66% of the ore; the remainder was trucked to a concentrator at the Selous Metallurgical Complex (SMC), which was located about 77 kilometers (km) north of the Ngezi Mine. Output from all three concentrators was smelted at the SMC, and the smelter matte was exported to Impala's refinery in South Africa (Zimplats Holdings Ltd., 2013b; Impala Platinum Holdings Ltd., 2014).

In 2013, the metal content of the smelter matte was estimated to be 15 t of precious metals, which included gold, palladium, platinum, and rhodium. In early 2013, Zimplats Holdings signed a proposed indigenization implementation plan, but subsequently resumed discussions with the Minister of Youth Development, Indigenisation and Empowerment (Zimplats Holdings Ltd., 2013b, 2014).

In 2013, Unki Mines exported concentrates that contained an estimated 2.1 t of platinum, 1.4 t of palladium, 220 kg of gold, 164 kg of rhodium, and 208 kg of other PGMs. Ore reserves of the underground Unki Mine were expected to allow mining operations to continue until at least 2049 (Anglo American Platinum Ltd., 2014, p. 110, 154).

Tungsten.—Premier African Minerals Ltd. of the British Virgin Islands completed a preliminary economic assessment of its RHA Tungsten Project, which was located about 20 km southeast of Hwange. Premier proposed to start mining at RHA in 2014 and to reach steady-state production of 970 t/yr of tungsten in concentrate during the second year of mining (Premier African Minerals Ltd., 2013, p. 1–2).

Industrial Minerals

Diamond.—Several companies produced industrial diamond from unconsolidated surface sediments in the Marange diamondfield in the Chiadzwe area of eastern Zimbabwe, including Anjin Investments (Private) Ltd., Diamond Mining Corporation (Private) Ltd., Gye Nyame Resources, Marange Resources (Private) Ltd., and Mbada Mining (Private) Ltd. In 2013, Kusena Diamonds started mining operations at Marange, and Rera Diamonds initiated diamond exploration. DTZ-OZGEO (Private) Ltd. started diamond mining operations in Chimanimani.

In 2013, many of the diamond companies that worked the Marange diamondfield were adversely affected by the depletion of alluvial diamond in the surface and near-surface material that was being processed, reducing production. The companies were not equipped to process the underlying diamond-containing conglomerate. Reduced output resulted in increased labor disputes over nonpayment of salaries, reductions in the operational staffs of the mines, nonpayment of required Government fees and taxes, and the failure to start payments on a $50-million pledge to the Marange-Zimunya Community Share Ownership Trust (Financial Gazette, The, 2014).

Murowa Diamonds (Private) Ltd., which was a subsidiary of the joint venture of Rio Tinto plc of the United Kingdom and

RioZim Ltd., recovered 410,096 carats of diamond from the Murowa Mine in 2013. Rio Tinto was unable to find a suitable buyer for its interest in the mine and subsequently suspended plans to divest its interest in the Murowa Mine (RioZim Ltd., 2014, p. 18–19).

Phosphate Rock.—In 2013, continuing financial problems associated with sanctions significantly restrained the rehabilitation of the Msasa plant of fertilizer producer Zimbabwe Phosphate Industries Ltd. and phosphate rock mining operations at Dorowa Minerals (Private) Ltd. Both companies were subsidiaries of state-owned Chemplex Corporation Limited Group (Bonga, 2013; Mhlanga, 2014).

Outlook

Zimbabwe has abundant mineral resources and a well-developed transportation system. The rehabilitation of the mining industry and the expansion of production could be a basis for the growth of Zimbabwe's GDP; however, mineral sector activities are expected to continue to be constrained by ongoing political issues, especially the implementation of the Indigenisation and Economic Empowerment Act and decreases of international mineral commodity prices. Shortages of electrical power, fuel, and skilled employees also are expected to continue to affect mineral sector operations adversely in the near term.

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TABLE 1

ZIMBABWE: ESTIMATED PRODUCTION OF MINERAL COMMODITIES[1, 2]

(Metric tons unless otherwise specified)

Commodity[3]		2009	2010	2011	2012	2013
METALS						
Chromite, gross weight		193,673 [4]	510,000	599,079 [4]	408,475 [4]	355,142 [4]
Cobalt, metal content[5]		74	79	86	88	319 [4]
Copper:						
Mine output, concentrate, Cu content		3,572 [4]	4,700	6,000	6,300	8,275 [4]
Metal, refinery output, refined/cathode, primary		4,000	4,545 [4]	4,355 [4]	2,869 [r, 4]	3,360 [4]
Gold, metal content	kilograms	4,965 [4]	9,100	12,824 [4]	14,742 [4]	14,065 [4]
Iron and steel:						
Steel, crude	thousand metric tons	14	14	15	15	15 [e]
Ferroalloys:						
Ferrochromium		72,223 [4]	146,000	140,000	137,534 [4]	129,554 [4]
Ferrosilicon chromium		603	--	--	--	-- [4]
Nickel:						
Mine output, concentrate, Ni content		4,858 [4]	6,200	7,992 [4]	7,899 [4]	14,058 [4]
Refinery output, refined metal		5,000	4,039 [4]	3,715 [4]	1,754 [r, 4]	2,845 [4]
Platinum-group metals:						
Iridium	kilograms	209 [4]	220	220	240	524 [4]
Palladium	do.	5,680	7,000	8,241 [4]	7,800 [r]	10,153 [4]
Platinum	do.	6,849 [4]	8,800	10,826 [4]	10,500 [r]	13,066 [4]
Rhodium	do.	900	900	900	990	1,146 [4]
Ruthenium	do.	650	700	700	760	1,012 [4]
Total	do.	14,300	17,600	20,900	22,900	25,900
Silver	do.	200	400	550	600	590
INDUSTRIAL MINERALS						
Asbestos		4,971 [4]	2,400	--	--	614 [4]
Cement, hydraulic	thousand metric tons	700	800	1,000	1,100	1,200
Clays, common		600	600	700	700	700
Diamond:						
Gem	carats	900,000	NA	NA	NA	NA
Industrial	do.	100,000	NA	NA	NA	NA
Total[4]	do.	963,502	8,435,244	8,502,648	12,060,163	10,411,818
Graphite		2,463 [4]	4,000	7,000	6,000	6,934 [4]
Lithium minerals, gross weight		50,000	47,000	48,000	53,000	50,000
Magnesite		449 [4]	--	--	--	-- [4]
Mica		1,000	1,000	1,000	1,000	1,000
Nitrogen, N content of ammonia		14,000	29,000	26,000	25,000	27,000
Perlite		3,000	1,000	1,000	1,000	1,000
Phosphate rock, marketable concentrate		20,000	63,000	60,000	20,000	6,100 [4]
Stone, sand and gravel:						
Granite, black		500	700	500	--	-- [4]
Limestone	thousand metric tons	40	50	50	50	55
Sulfur, byproduct acid, S content		1,000	1,000	1,000	1,000	1,100
Talc		200	--	--	--	-- [4]
Vermiculite		3,211 [4]	--	--	--	-- [4]
MINERAL FUELS AND RELATED MATERIALS						
Coal, bituminous	thousand metric tons	1,750	2,668 [4]	2,562 [4]	3,500	4,980 [4]
Coke, including metallurgical	do.	43 [4]	180	240	370	200

[r]Revised. do. Ditto. NA Not available. -- Zero.

[1]Estimated data are rounded to no more than three significant digits; may not add to totals shown.

[2]Table includes data available through February 27, 2015.

[3]In addition to the commodities listed, secondary aluminum and lead; corundum; feldspar; such gemstones as amethyst, aquamarine, emerald, iolite, and tourmaline; kaolin; kyanite; and ores of antimony, tantalum, tin, and tungsten may be produced, but available information is inadequate to make reliable estimates of output.

[4]Reported figure.

[5]Includes metal content of cobalt compounds recovered from exported ore and smelter matte. Does not include cobalt compounds recovered from the Ngezi Mine or cobalt sulfate recovered from the Unki Mine.

TABLE 2
ZIMBABWE: STRUCTURE OF THE MINERAL INDUSTRY IN 2013

(Metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Asbestos	African Associated Mines (Private) Ltd.	Shabanie Mine, Zvishavane	2,400,000 [1]
Do.	do.	Gaths Mine, Mashava	1,400,000 [1]
Cement:			
Clinker	Portland Holdings Ltd. [Pretoria Portland Cement Company Ltd. (PPC)]	Colleen Bawn, about 115 kilometers southeast of Bulawayo	1,000,000
Portland	Lafarge Cement Zimbabwe Ltd. (Lafarge, S.A.)	Harare	450,000
Do.	Portland Holdings Ltd. [Pretoria Portland Cement Company Ltd. (PPC)]	Bulawayo	800,000
Do.	Sino-Zimbabwe Cement Company Ltd. (China Building Material Industrial Corporation for Foreign Econo-Technical Cooperation and Industrial Development Corp.)	Gweru	300,000
Chromite	Local cooperatives and small-scale miners	Mines on the southern Great Dyke	340,000 [1]
Do.	do.	Mines on the northern Great Dyke	230,000 [1]
Do.	Zimbabwe Alloys Ltd. (Zim Alloys)	Inyala Mine	60,000 [1]
Do.	Zimbabwe Mining and Smelting Co. (Private) Ltd. (Zimasco) [Zimasco Consolidated Enterprises Ltd. (ZCE)]	Mining operations near Darwendale, Lalapanzi, Mutorashanga, Ngezi, and south of Shurugwi	300,000
Coal	Coal Brick (Private) Ltd.	Coal Brick Mine, Hwange	500,000
Do.	Coal Zimbabwe (Private) Ltd. [Steelmakers Zimbabwe (Private) Ltd.]	Chiredzi, about 130 kilometers southeast of Masvingo	1,200,000
Do.	Hwange Colliery Company Ltd. (Government, 37.07%; Messina Investments Ltd., 15.08%; Mittal Steel African Investments, 9.76%; London Register, 6.87%; National Social Security Authority, 6.16%)	3 Main Underground Mine, the Chaba open pit mine, and the JKL open pit mine, Hwange	5,000,000
Do.	Makoma Resources (Private) Ltd.	Entuba coalfields, near Hwange	2,400,000
Do.	Sengwa Colliery (Private) Ltd. (RioZim Ltd.)	Sengwa Colliery, about 200 kilometers northeast of Kadoma	5,000,000 [1]
Do.	Tulicoal (Private) Ltd. [Senzile Mining (Private) Ltd.]	do.	1,200,000 [1]
Cobalt:			
Ore, cobalt content	Bindura Nickel Corporation Ltd. (Mwana Africa plc)	Trojan Mine at Bindura and Shangani Mine,[1] about 100 kilometers northeast of Harare	800
Do.	Mimosa Holdings (Private) Ltd. (Aquarius Platinum Ltd., Impala Platinum Holdings Ltd., and Zvishavane Community Share Ownership Trust)	Mimosa Mine, east of Zvishavane	88
Do.	Unki Mines (Private) Ltd. (Anglo Platinum Ltd.)	Unki Mine, 10 kilometers northwest of Shurugwi	NA
Do.	Zimbabwe Platinum Mines (Private) Ltd. (Zimplats Holdings Ltd.)	Ngezi Mine, which includes the Ngwarati Mine (also known as Portal 1), the Rukodzi Mine (Portal 2), the Mupfuti Mine (Portal 3), and the Bimha Mine (Portal 4)	NA
Hydroxide	BSR Ltd. (Bindura Nickel Corporation Ltd., 100%)	Bindura	700 [1]
Do.	Empress Nickel Refinery (RioZim Ltd.)	Eiffle Flats, near Kadoma	NA
Coke	Hwange Coal Gasification Company (Private) Ltd. [Taiyuan Sanxing Coal Gasification Co., Hwange Colliery Company Ltd., and Stoat Mining (Private) Ltd.]	Hwange	144,000
Do.	Hwange Colliery Company Ltd. [Government, 37.07%; Messina Investments Ltd., 15.08%; Mittal Steel African Investments, 9.76%; London Register, 6.87%; National Social Security Authority, 6.16%]	do.	230,000

See footnotes at end of table.

TABLE 2—Continued
ZIMBABWE: STRUCTURE OF THE MINERAL INDUSTRY IN 2013

(Metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Copper:				
Ore, copper content		Bindura Nickel Corporation Ltd. (Mwana Africa plc)	Trojan Mine at Bindura and Shangani Mine,[1] about 100 kilometers northeast of Harare	NA
Do.		Mimosa Holdings (Private) Ltd. (Aquarius Platinum Ltd., Impala Platinum Holdings Ltd., and Zvishavane Community Share Ownership Trust)	Mimosa Mine, east of Zvishavane	3,000
Do.		Unki Mines (Private) Ltd. (Anglo Platinum Ltd.)	Unki Mine, 10 kilometers northwest of Shurugwi	1,300
Do.		Zimbabwe Platinum Mines (Private) Ltd. (Zimplats Holdings Ltd.)	Ngezi Mine, which includes the Ngwarati Mine (also known as Portal 1), the Rukodzi Mine (Portal 2), the Mupfuti Mine (Portal 3), and the Bimha Mine (Portal 4)	3,600 [e]
Refined		Empress Nickel Refinery (RioZim Ltd.)	Eiffle Flats, near Kadoma	6,000
Diamond	carats	Anjin Investments (Private) Ltd. [Joint venture of Anhui Foreign Economic Construction Group and Matt Bronze (Private) Ltd.]	Marange deposit in the Chiadzwe area	NA [2]
Do.	do.	Diamond Mining Corporation (Private) Ltd. [Joint venture of Pure Diam and Zimbabwe Mining Development Corp. (ZMDC)]	do.	NA [2]
Do.	do.	DTZ-OZGEO (Private) Ltd. (Joint venture of Development Trust of Zimbabwe and JSC Zarubezhgeologia)	Chimanimani	NA
Do.	do.	Gye Nyame Resources [Joint venture of Zimbabwe Mining Development Corp. (ZMDC) and Bill Minerals]	Marange deposit in the Chiadzwe area	NA [2]
Do.	do.	Kusena Diamonds [Zimbabwe Mining Development Corp. (ZMDC)]	do.	NA [2, 3]
Do.	do.	Marange Resources (Private) Ltd.) [Zimbabwe Mining Development Corp. (ZMDC)]	do.	NA [2]
Do.	do.	Mbada Mining (Private) Ltd. [Grandwell Holdings Ltd., Marange Resources (Private) Ltd., and Transfrontier Mining Company Ltd.]	do.	NA [2]
Do.	do.	Murowa Diamonds (Private) Ltd. (Rio Tinto plc, 77.8%; and RioZim Ltd., 22.2%)	Murowa Mine, near Zvishavane	403,000
Do.	do.	Limpopo Minerals Resources Ltd (Rani Investment LLC, 80%, and Khupukile Resources Ltd., 20%)	River Ranch Mine, near Beitbridge	NA [1, 2]
Do.	do.	Sino Zimbabwe Development (Private) Ltd. [Zimbabwe Mining Development Corp. (ZMDC)]	Marange deposit in the Chiadzwe area	NA [2]
Gold				
Mine	kilograms	Artisanal miners, including small-scale miners and syndicates	Various locations	3,000 [e]
Do.	do.	Blanket Mine (1983) (Private) Ltd. [Caledonia Mining Corp., 49%; National Indigenisation and Economic Empowerment Fund, 16%; Fremiro, 15%; Blanket Employee Trust Services (Private) Ltd., 10%; Gwanda Community Share Ownership Trust, 10%]	Blanket Mine, about 15 kilometers west of Gwanda	1,300 [e]
Do.	do.	Casmyn Mining Zimbabwe (Private) Ltd. (New Dawn Mining Corp.)	Turk-Angelus Mine, 56 kilometers northeast of Bulawayo	550 [e]
Do.	do.	DTZ-OZGEO (Private) Ltd. (Joint venture of Development Trust of Zimbabwe and Econedra)	Placer mining operations at Penhalonga, about 15 kilometers northwest of Mutare	240 [e]
Do.	do.	Duration Gold Ltd. (Clarity Capital Group)	Vubachikwe Mine, near Gwanda	200 [e]
Do.	do.	do.	Athens Mine, Mvuma	100 [e]
Do.	do.	do.	Gaika Mine, Kwe Kwe	30 [e]
Do.	do.	Falcon Gold Zimbabwe Ltd. (New Dawn Mining Corp.)	Golden Quarry Mine, about 7 kilometers north of Shurugwi	300 [e]
Do.	do.	do.	Dalny Complex, about 33 kilometers northwest of Chegutu	250 [e]
Do.	do.	F.A. Stewart (Private) Ltd.	Jessie Mine, east of Gwanda	150 [e]
Do.	do.	Jena Mine (Private) Ltd. [Zimbabwe Mining Development Corp. (ZMDC)]	Jena Mine	450 [e]
Do.	do.	John Mack and Co.	Golden Valley Mine	500 [e]
Do.	do.	Matebeland Minerals (Private) Ltd.	Turk Mine	600 [e]

See footnotes at end of table.

TABLE 2—Continued
ZIMBABWE: STRUCTURE OF THE MINERAL INDUSTRY IN 2013

(Metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Gold—Continued:				
Mine—Continued	kilograms	Metallon Gold Zimbabwe (Private) Ltd. (Metallion Corp.)	Arcturus Mine, 32 kilometers east of Harare	500 [e]
Do.	do.	do.	How Mine, about 24 kilometers southeast of Bulawayo	1,300 [e]
Do.	do.	do.	Mazowe Mine, Mazowe	400 [e]
Do.	do.	do.	Redwing Mine, Penhalonga	200 [e]
Do.	do.	do.	Shamva Mine, Shamva	700 [e]
Do.	do.	Mimosa Holdings (Private) Ltd. (Aquarius Platinum Ltd., Impala Platinum Holdings Ltd., and Zvishavane Community Share Ownership Trust)	Mimosa Mine, east of Zvishavane	NA
Do.	do.	Mwana Africa plc	Freda Rebecca Mine, Bindura	3,700 [e]
Do.	do.	Pan Reef Mining Company (Private) Ltd.	Indarama Mine	50 [e, 2]
Do.	do.	RioZim Ltd.	Renco Mine, 75 kilometers south-southeast of Masvingo	1,000 [e]
Do.	do.	Sabi Gold Mines [Zimbabwe Mining Development Corp. (ZMDC)]	Sabi Mine	250 [e]
Do.		Unki Mines (Private) Ltd. (Anglo Platinum Ltd.)	Unki Mine, 10 kilometers northwest of Shurugwi	NA
Do.		Zimbabwe Platinum Mines (Private) Ltd. (Zimplats Holdings Ltd.)	Ngezi Mine, which includes the Ngwarati Mine (also known as Portal 1), the Rukodzi Mine (Portal 2), the Mupfuti Mine (Portal 3), and the Bimha Mine (Portal 4)	NA
Refined		Fidelity Printers & Refiners (Private) Ltd. (subsidiary of Reserve Bank of Zimbabwe)	Plant at Harare	NA
Graphite		Zimbabwe German Graphite Mines (Private) Ltd. [Graphite Kropmühl division of AMG Advanced Metallurgical Group N.V. and Zimbabwe Mining Development Corp. (ZMDC)]	Lynx Graphite Mine, Karoi	NA
Iron and steel:				
Ferroalloys, ferrochromium		CINA	Smelter at Gweru	5,000 [e, 1]
Do.		Jin An Corp. and Xin Yu Mining Corp.	do.	5,000 [e, 1]
Do.		Maranatha Ferrochrome (Private) Ltd.	Smelter at Eiffel Flats	28,000 [1]
Do.		MonaChrome	Smelter at Chegutu	5,000 [e, 1]
Do.		Olliken Ferro Alloys (Private) Ltd.	Smelter at Kwekwe	25,000 [1]
Do.		Wel Mining	Smelter at Gweru	5,000 [e, 1]
Do.		Zimbabwe Alloys Ltd. (Zim Alloys)	do.	45,000
Do.		Zimbabwe Mining and Smelting Co. (Private) Ltd. (Zimasco) [Zimasco Consolidated Enterprises Ltd. (ZCE)]	Smelter at Kwekwe	180,000
Iron:				
Iron ore, gross weight		NewZim Minerals Private Ltd. (Essar Africa Holdings Ltd., 80%, and Government, 20%)	Ripple Creek Mine, near Redcliff	600,000 [1]
Sponge iron		Steelmakers Zimbabwe (Private) Ltd. (Steelmakers Ltd.)	Masvingo	54,000
Steel:				
Crude steel		NewZim Steel Private Ltd. (Essar Africa Holdings Ltd., 53.4%, and Government, 35.6%)	Blast furnace at Redcliff, near Gweru	72,000 [1, 4]
Do.		Steelmakers Zimbabwe (Private) Ltd. (Steelmakers Ltd.)	Electric arc furnace at Redcliff	15,000
Rolled steel		Lancashire Steel (Private) Ltd. [Zimbabwe Iron and Steel Company (Private) Ltd. (Zisco)]	Wire rod mill at Kwekwe	120,000
Do.		Steelmakers Zimbabwe (Private) Ltd. (Steelmakers Ltd.)	Rolling mill at Redcliff	36,000
Lithium		Bikita Minerals (Private) Ltd.	Bikita Mine, 60 kilometers east of Musingo	55,000

See footnotes at end of table.

TABLE 2—Continued
ZIMBABWE: STRUCTURE OF THE MINERAL INDUSTRY IN 2013

(Metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Nickel:			
Ore	Bindura Nickel Corporation Ltd. (Mwana Africa plc)	Trojan Mine at Bindura and Shangani Mine,[1] about 100 kilometers northeast of Harare	1,100,000 [e]
Ore, Ni content	Mimosa Holdings (Private) Ltd. (Aquarius Platinum Ltd., Impala Platinum Holdings Ltd., and Zvishavane Community Share Ownership Trust)	Mimosa Mine, east of Zvishavane	3,000
Do.	Unki Mines (Private) Ltd. (Anglo Platinum Ltd.)	Unki Mine, 10 kilometers northwest of Shurugwi	1,000
Do.	Zimbabwe Platinum Mines (Private) Ltd. (Zimplats Holdings Ltd.)	Ngezi Mine, which includes the Ngwarati Mine (also known as Portal 1), the Rukodzi Mine (Portal 2), the Mupfuti Mine (Portal 3), and the Bimha Mine (Portal 4)	4,900 [e]
Refined metal	BSR Ltd. (Bindura Nickel Corporation Ltd., 100%)	Bindura	15,600 [1]
Do.	Empress Nickel Refinery (RioZim Ltd.)	Eiffle Flats, near Kadoma	9,000
Nitrogen (ammonium nitrate)	Sable Chemical Industries Ltd. [TA Holdings Ltd., 51%; Chemplex Corporation Ltd., 36%; Yara Zimbabwe (Private) Ltd., 12%]	Electrolysis plant north of Kwekwe	240,000
Phosphate rock	Dorowa Minerals (Private) Ltd. (Chemplex Corporation Ltd.)	Dorowa Mine, 90 kilometers west of Mutare	155,000 [1]
Phosphate fertilizer	Zimbabwe Phosphate Industries (Chemplex Corporation Ltd.)	Msasa plant, Harare	NA
Platinum-group metals:			
Ore	Zimbabwe Platinum Mines (Private) Ltd. (Zimplats Holdings Ltd.)	Ngezi Mine, which includes the Ngwarati Mine (also known as Portal 1), the Rukodzi Mine (Portal 2), the Mupfuti Mine (Portal 3), and the Bimha Mine (Portal 4)	5,100,000
Do.	Mimosa Holdings (Private) Ltd. (Aquarius Platinum Ltd., Impala Platinum Holdings Ltd., and Zvishavane Community Share Ownership Trust)	Mimosa Mine, east of Zvishavane	2,400,000
Do.	Unki Mines (Private) Ltd. (Anglo Platinum Ltd.)	Unki Mine, 10 kilometers northwest of Shurugwi	1,600,000
Concentrate	Zimbabwe Platinum Mines (Private) Ltd. (Zimplats Holdings Ltd.)	Ngezi concentrator, Ngezi Mine	4,200,000
Do.	do.	Selous concentrator, Selous Metallurgical Complex	2,180,000
Do.	Mimosa Holdings (Private) Ltd. (Aquarius Platinum Ltd., Impala Platinum Holdings Ltd., and Zvishavane Community Share Ownership Trust)	Mimosa concentrator, east of Zvishavane	1,900,000
Smelter matte	Zimbabwe Platinum Mines (Private) Ltd. (Zimplats Holdings Ltd.)	Selous smelter, 100 kilometers south of Harare	72,000
Pyrite	Iron Duke Pyrites (GAT Investments (Private) Ltd.)	Iron Duke Mine	NA [1]
Vermiculite	Samrec Vermiculite Zimbabwe (Private) Ltd. (Imerys Group)	Shawa Mine, near Dorowa	39,000
Do.	Dinidza Vermiculite Mining Co. (Private) Ltd.	Dinidza Mine, near Dorowa	10,000

[e]Estimated. Do., do. Ditto. NA Not available.
[1]Operations suspended.
[2]Ownership disputed.
[3]Under development or redevelopment.
[4]Nominal capacity 1,000,000 metric tons per year. Blast furnaces awaiting refurbishment.